

REMARKS

Claims 1-19 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 14, 15, 18 and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Uchida et al. (U.S. Pub. No. 2002/0097194). This rejection is respectfully traversed.

Claim 14 is amended to recite:

14. A display method comprising:
causing a display device having a reflective display disposed on a rear surface side of a self-luminous transmissive display to display display contents;
causing the transmissive display to display color display data included in the display contents with a self-luminous layer that self-emits desired color lights in response to a first applied voltage, and a pair of transparent electrodes disposed so as to sandwich the self-luminous layer; and
causing the reflective display to display monochromatic display data included in the display contents with an electrophoresis layer that displays two colors in response to a second applied voltage,
wherein one of the transparent electrodes is shared by the transmissive display and the reflective display.

Support for these amendments may be found throughout the specification and drawings as originally filed. No new matter is added.

Uchida does not disclose the steps of "causing the transmissive display to display color display data included in the display contents with a self-luminous layer that self-emits desired color lights in response to a first applied voltage, and a pair of

transparent electrodes disposed so as to sandwich the self-luminous layer; and causing the reflective display to display monochromatic display data included in the display contents with an electrophoresis layer that displays two colors in response to a second applied voltage.” Because these steps are not disclosed by Uchida, Applicant respectfully asserts that claim 14 and each corresponding dependent claim are not anticipated.

Reconsideration and withdrawal of this rejection, therefore, are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103(A)

Claims 1-4, 13 and 20 stand rejected as being unpatentable over Antila et al. (U.S. Pat. No. 6,583,770) in view of Jacobson (U.S. Pat. No. 6,445,489); claim 5 stands rejected as being unpatentable over Antila et al. in view of Suso et al. (U.S. Pat. No. 6,466,202); claims 6 and 21 stand rejected as being unpatentable over Antila et al. and Jacobson in further view of Suso et al.; and claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Antila et al. and Jacobson in view of Matthies et al. (U.S. Pat. No. 6,498,592). These rejections are respectfully traversed.

At the outset, Applicant notes that claim 5 stands rejected in view of Antila and Suso. On page 5 of the Office Action, however, the Examiner also relies on the teachings of Jacobson in rejecting claim 5. Because Jacobson is also relied on in rejecting claim 5, Applicant elects to address the rejection of claim 5 concurrently with the rejection of claim 1 (which is rejected in view of Antila and Jacobson).

With respect to claims 1 and 5, the Examiner alleges that Antila teaches, in Figure 4b, a display device including first display D1 disposed on a display screen side of the display device and a second display D2 disposed on a rear surface side of the display device. The first display D1 allegedly includes an electro-luminescent film 45 and a pair of transparent electrodes 43 and 47 that are disposed to sandwich the film 45.

Although Antila fails to teach a second display including an electrophoresis layer that displays two colors in response to a second applied voltage, Jacobsen allegedly teaches combining a light-emitting layer, a photoconductive layer, and electrophoretic layer. Accordingly, the Examiner alleges that it would have been obvious to incorporate the electrophoretic layer within the display of Antila to arrive at the claimed invention.

Applicant respectfully asserts that it would not have been obvious to combine the teachings of Antila with the teachings of Jacobson to arrive at the claimed invention. In this regard, independent claims 1 and 5 include the features of "a self-luminous layer that self-emits desired color lights in response to a first applied voltage; and a pair of transparent electrodes disposed so as to sandwich the self-luminous layer." The claimed self-luminous layer is composed of an organic EL emission layer 4 that is sandwiched by a pair of transparent electrode 5 and 6, and is disposed on an electrophoresis panel 3 as disclosed in paragraph [0054] of the specification. The electrophoresis panel can display color contents as described in paragraph [0056]. The contents displayed by the electrophoresis panel 3 must be viewed through the pair of transparent electrode 5 and 6.

Jacobson teaches an electrophoretic layer 14, a single clear top electrode 16, a light-emitting layer 10, and a photoconductive layer 12. See column 8, line 23-24 and FIG 1 of Jacobsen. The contents displayed by the electrophoretic layer 14 can only be viewed from the clear top electrode 16. Moreover, no contents may be displayed by the light-emitting layer 10, which may be either an organic light-emitting material or an organic light-emitting diode (please see the ABSTRACT of Jacobsen) because the light-emitting layer only serves as a light source that causes light to strike the photoconductive layer 12. See column 2, line 48. In addition, no light emitted by the light-emitting layer can go through the electrophoretic layer 14.

In other words, although Jacobson teaches a light-emitting layer 10, this element is not used to display contents and is only used to activate the photoconductive layer. Because the light-emitting layer 10 operates in a completely different manner compared to the electro-luminescent film 45 taught by Antila, Applicant respectfully asserts that there is no motivation or suggestion to incorporate the display of Jacobson into the display of Antila.

Moreover, although Antila teaches a dual-sided display, there is only a single display mechanism. There is no teaching or suggestion to incorporate both a self-luminous layer that self-emits desired color lights in response to a first applied voltage and an electrophoresis layer that displays two colors in response to a second applied voltage into a single display. Any motivation for such a combination arises solely from the teachings of the claimed invention. Because the teachings of the claimed invention may not be used as the motivation for combining prior art references, the proposed combination of Antila and Jacobson is improper.

Lastly, claims 1 and 5 are each amended to recite that “one of the transparent electrodes is shared by the first display and the second display.” This subject matter was previously founding claims 20 and 21, respectively. No new matter is added.

The “shared” electrode is an electrode which is shared by both the electrophoresis panel 3 and the organic EL display 2. Please see Figure 2 of the present application. The “shared” electrode is one of the two electrodes of the electrophoresis panel that also serves as one of the two electrodes of the organic EL display 2 at the same time.

Although Jacobson teaches that the photoconductive layer 12 may essentially serves as one electrode of display 20 (see column 4, lines 49-50), Applicant respectfully asserts that this disclosure does not teach that the photoconductive layer 12 also serves as one electrode of the light-emitting layer 10. In this regard, in order to emit light, the light-emitting layer 10 should be addressed at the first predetermined voltage, and in order to perform the first predetermined voltage, based on general knowledge of physics, two electrodes (which are not mentioned in Jacobson, et al.) are needed for a light-emitting layer 10. Since the the photoconductive layer 12 cannot operate as an electrode until it is struck by lights emitted by a light-emitting layer 10, it is impossible that the photoconductive layer 12 could serve as one of the electrodes that performs the first predetermined voltage for a light-emitting layer. Please also see column 2, lines 38-59 where the photoconductive layer 12 disclosed in Jacobson is merely “one electrode of display 20”, but not a “shared electrode” like the claimed shared electrode.

For the above reasons, Applicant respectfully asserts that it would not have been obvious to combine the teachings of Antila and Jacobson to arrive at the claimed

invention. Any combination of these references, therefore, is improper and claims 1, 5, and each corresponding dependent claim would not have been obvious.

Claims 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Uchida et al. (U.S. Pub. No. 2002/0097194) in view of Suso et al. This rejection is respectfully traversed.

Claims 16 and 17 depend from claim 14, addressed above. Claims 16 and 17 are neither anticipated nor obvious in view of Uchida and Suso.

Reconsideration and withdrawal of these rejections, therefore, are respectfully requested.

NEW CLAIM

New claims 22 and 23 depend from claims 1 and 5, respectively, and recite that "said second display disposed on a rear surface side of the display device is viewed from said display screen side." This subject matter is described throughout the specification and drawings as originally filed. No new matter is added.

In contrast to viewing the second display from the display screen side, Antila teaches a display having a dual-sided display that may be viewed from a first side D1 and a second side D2. This is different from the display devices recited by claims 22 and 23 and, therefore, this feature is believed to be allowable over the cited prior art references. Favorable consideration of these new claims is respectfully requested.

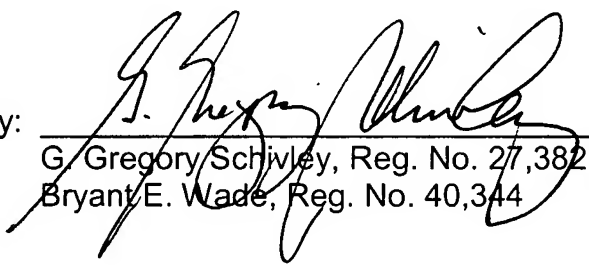
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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